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Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.13/GA/CSR-04/808a/CEMENT/2015-16 Date: 09.04.2015

TEST REPORT ON CEMENT

*** CUSTOMER**	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
***AGENCY**	:	**Mr. G. Aswathappa** No. 880, 9th Main Road, 1st Cross, Hesaragatta Road, Bhuvaneshwarinagara, T. Dasarahalli, Bangalore.
***NAME OF THE WORK**	:	Improvements to footpath 8th, 7th & 10th Cross Roads of Kalyananagara in Ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.
REFERENCE	:	BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 06.04.2015
SAMPLE ID	:	Cement – Sample 2
SAMPLE RECEIVED ON	:	06.04.2015
PERIOD OF TESTING	:	06.04.2015 to 09.04.2015

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	29.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	180 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	465 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

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⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

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ಎಸ್.ಎಂ ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು.

****

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Job No.: CTCE/BBMP/W.No.13/GA/CSR-04/808a/SAND-Gradation/2015-16 : 09.04.2015

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. G. Aswathappa**
No. 880, 9th Main Road, 1st Cross, Hesaragatta Road, Bhuvaneshwarinagara, T. Dasarahalli, Bangalore.

*** Name of Work** : Improvements to footpath 8th, 7th & 10th Cross Roads of Kalyananagara in Ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 06.04.2015

Technical Reference : IS : 2386 Part 1 - 1963 RA-2007

Sample ID : Fine Aggregates - Sample 2

Sample Received on : 06.04.2015

Date of Testing : 09.04.2015

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Spec.Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	92.70	90-100	90-100	90-100	95-100
2.36	76.50	60-95	75-100	85-100	95-100
1.18	58.10	30-70	55-90	75-100	90-100
600 Micron	36.60	15-34	35-59	60-79	80-100
300 Micron	12.30	5-20	8-30	12-40	15-50
150 Micron	3.10	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

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Remarks : This sample is under Zone-II specific limits.

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Job No.: CTCE/BBMP/W.No.13/GA/CSR-04/808a/AGG/GR/2015-16 : 09.04.2015

TEST REPORT ON COARSE AGGREGATES

*** Customer**	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
*** Agency**	: **Mr. G. Aswathappa** No. 880, 9th Main Road, 1st Cross, Hesaragatta Road, Bhuvaneshwarinagara, T. Dasarahalli, Bangalore.
*** Name of Work**	: Improvements to footpath 8th, 7th & 10th Cross Roads of Kalyananagara in Ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 06.04.2015
Technical Reference	: IS : 2386 Part 1 -1963 RA-2007
Sample ID	: Coarse Aggregates (40mm) - Sample 2
Sample Received on	: 06.04.2015
Date of Testing	: 09.04.2015

Total Wt. of Aggregates in gms= **10000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Spec.Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	97.35	95-100	85-100
20	37.11	30-70	0-20
10	12.75	10-35	0-5
4.75	2.60	0-5	-

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits.

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Job No.: CTCE/BBMP/W.No.13/GA/CSR-04/808a/AGG/GR/2015-16 : 09.04.2015

TEST REPORT ON COARSE AGGREGATES

*** Customer**	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
*** Agency**	: **Mr. G. Aswathappa** No. 880, 9th Main Road, 1st Cross, Hesaragatta Road, Bhuvaneshwarinagara, T. Dasarahalli, Bangalore.
*** Name of Work**	: Improvements to footpath 8th, 7th & 10th Cross Roads of Kalyananagara in Ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 06.04.2015
Technical Reference	: IS : 2386 Part 1 -1963 RA-2007
Sample ID	: Coarse Aggregates (20mm) - Sample 2
Sample Received on	: 06.04.2015
Date of Testing	: 09.04.2015

Total Wt. of Aggregates in gms= **5000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Spec.Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
40	100	100	100
20	96.12	95-100	85-100
10	32.98	25-55	0-20
4.75	3.94	0-10	0-5

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits

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Job No.: CTCE/BBMP/W.No.13/GA/CSR-04/808a/CC Solid Block/2015-16 : 10.04.2015

TEST REPORT ON CEMENT CONCRETE SOLID BLOCKS

* Customer : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

* Agency : **Mr. G. Aswathappa**
No. 880, 9th Main Road, 1st Cross, Hesaragatta Road, Bhuvaneshwarinagara, T. Dasarahalli, Bangalore.

* Name of the Work : Improvements to footpath 8th, 7th & 10th Cross Roads of Kalyananagara in Ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 06.04.2015

Sample Received on : 06.04.2015

Date of Testing : 10.04.2015

Size of Blocks : 400mm x 150mm x 200mm

Cross Sectional Area : 60000 mm^2

Technical Reference : IS: 2185 (Part 1) - 2005

No. of Blocks Tested : 08

Sl.No.	Block ID	Wt. in Kg	Failure load (KN)	Compressive strength (N/mm^2)	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	24.15	199.5	3.33	
2	Block 2	26.35	195.6	3.26	
3	Block 3	25.84	194.7	3.25	Minimum required Compressive Strength of Individual Units 3.20 N/mm^2
4	Block 4	25.16	197.2	3.29	
5	Block 5	26.94	198.3	3.31	
6	Block 6	24.13	199.1	3.32	
7	Block 7	25.78	197.8	3.30	
8	Block 8	26.37	196.7	3.28	

*Information is furnished by the Customer/Representative.

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Job No.: CTCE/BBMP/W.No.13/GA/CSR-04/808a/CC Solid Block/2015-16 : 10.04.2015

TEST REPORT ON CEMENT CONCRETE SOLID BLOCKS

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: **Mr. G. Aswathappa** No. 880, 9th Main Road, 1st Cross, Hesaragatta Road, Bhuvaneshwarinagara, T. Dasarahalli, Bangalore.
* Name of the Work	: Improvements to footpath 8th, 7th & 10th Cross Roads of Kalyananagara in Ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 06.04.2015
Sample Received on	: 06.04.2015
Date of Testing	: 10.04.2015
Size of Blocks	: 400mm x 200mm x 200mm
Cross Sectional Area	: 80000 mm^2
Technical Reference	: IS: 2185 (Part 1) - 2005
No. of Blocks Tested	: 08

Sl.No.	Block ID	Wt. in Kg	Failure load (KN)	Compressive strength (N/mm^2)	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	35.16	262.5	3.28	Minimum required Compressive Strength of Individual Units 3.20 N/mm^2
2	Block 2	34.87	264.8	3.31	
3	Block 3	36.95	263.1	3.29	
4	Block 4	34.28	265.9	3.32	
5	Block 5	35.62	264.7	3.31	
6	Block 6	36.28	263.8	3.30	
7	Block 7	35.12	263.2	3.29	
8	Block 8	36.94	264.8	3.31	

*Information is furnished by the Customer/Representative.

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Job No.: CTCE/BBMP/W.No.13/GA/CSR-04/808a/Precast Slab/2015-16 27.04.2015

CEMENT CONCRETE CORE (PRECAST SLAB) TEST REPORT

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Mr. G. Aswathappa** No. 880, 9th Main Road, 1st Cross, Hesaragatta Road, Bhuvaneshwarinagara, T. Dasarahalli, Bangalore.
* Name of work	:	Improvements to footpath 8th, 7th & 10th Cross Roads of Kalyananagara in Ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	:	BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 06.04.2015
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Precast Slab
Sample Received on	:	22.04.2015
Date of Testing	:	27.04.2015

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	75.00	0.370	2512.53	1.50	0.955	32.3	16.43	17.75	16.95	21.19
2	50.00	76.00	0.378	2533.08	1.52	0.960	32.5	16.57	17.89	17.18	21.47
3	50.00	77.00	0.389	2572.94	1.54	0.955	32.8	16.73	18.06	17.25	21.56

* Information is furnished by the Customer/Representative

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VISHWANATH .C
Quality Manager

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27/4

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Job No.: CTCE/BBMP/W.No.13/GA/CSR-04/808a/CUBE/2015-16 27.04.2015

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

*** Customer** : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. G. Aswathappa**
No. 880, 9th Main Road, 1st Cross, Hesaragatta Road, Bhuvaneshwarinagara, T. Dasarahalli, Bangalore.

*** Name of the work** : Improvements to footpath 8th, 7th & 10th Cross Roads of Kalyananagara in Ward No. 13 in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 06.04.2015

*** Sample ID** : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

*** Grade of Concrete** : M_{15}

Compressive Strength as on : 7^{th} day

Sample Received on : 20.04.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	20.04.2015	27.04.2015	8.125	265.4	11.80
2	20.04.2015	27.04.2015	8.218	291.4	12.95
3	20.04.2015	27.04.2015	8.346	273.8	12.17

* Information is furnished by the Customer/Representative

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Quality Manager

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